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IN THE CLAIMS

Amendments to the Claims

A Listing of Claims is provided as follows and will replace any previous listing. No new matter has been added.

Listing of Claims:

1. (Currently amended) An aqueous solution for forming a copper-to-resin bonding layer, comprising:
 - (a) at least one type of acid selected from inorganic acid and organic acid;
 - (b) tin salt or tin oxide wherein the concentration of the tin salt or tin oxide in terms of the concentration of tin is in a range of 0.1 to 5 mass %;
 - (c) salt or oxide of at least one type of metal selected from the group consisting of: silver, zinc, aluminum, titanium, bismuth, chromium, iron, cobalt, nickel, palladium, gold, and platinum wherein the concentration of the salt or oxide of the at least one type of metal in terms of the concentration of metal is 0.5 to 10 mass %;
 - (d) a reaction accelerator wherein the concentration of the reaction accelerator is in a range of 5 to 40 mass %, the reaction accelerator being an agent that coordinates to copper as a base material to form a chelate and facilitates forming a bonding layer for bonding resin on a copper surface; and
 - (e) a diffusive retaining solvent wherein the concentration of the diffusive retaining solvent is in a range of 5 to 60 mass %, wherein the tin salt or tin oxide is at least one selected from the group consisting of stannous sulfate, stannic sulfate, stannous fluoroborate, stannous fluoride, stannic fluoride, stannous nitrate, stannic nitrate, stannous oxide, stannous chloride, stannic chloride, stannous formate, stannic formate, stannous acetate, and stannic acetate.
2. (Original) The solution according to claim 1, wherein the inorganic acid is at least one selected from the group consisting of: hydrochloric acid, sulfuric acid, nitric acid, fluoroboric acid, and phosphoric acid.

3. (Original) The solution according to claim 1, wherein the organic acid is at least one selected from the group consisting of: carboxylic acid, alkanesulfonic acid, and aromatic sulfonic acid.
4. (Currently Amended) The solution according to claim ~~[[3]]~~ 1, wherein the organic acid is at least one selected from the group consisting of: formic acid, acetic acid, propionic acid, butyric acid, methanesulfonic acid, ethanesulfonic acid, benzenesulfonic acid, phenolsulfonic acid, and cresolsulfonic acid.
5. (Original) The solution according to claim 1, wherein the concentration of the acid is in a range of 1 to 50 mass %.
- 6-7. (Canceled)
8. (Currently Amended) The solution according to claim 1, wherein the salt or oxide of the at least one type of metal is at least one type of soluble salt or oxide selected from the group consisting of: Ag_2O , ZnO , Al_2O_3 , TiO_2 , ~~[[Bi_2O_3]]~~ Bi_2O_3 , Cr_2O_3 , AgCl , ZnI_2 , AlBr_3 , BiI_3 , FeCl_3 , PdCl_2 , AuCl , Ag_2SO_4 , $\text{Zn}(\text{NO}_3)_2$, ~~[[$\text{Al}(\text{NO}_3)_3$]]~~ $\text{Al}(\text{NO}_3)_3$, NiSO_4 , CoSO_4 , CH_3COOAg , and $(\text{HCOO})_2\text{Zn}$.
9. (Canceled)
10. (Original) The solution according to claim 1, wherein the reaction accelerator is at least one compound selected from the group consisting of: thiourea, 1,3-dimethyl thiourea, 1,3-diethyl-2-thiourea, and thioglycolic acid.
11. (Canceled)
12. (Original) The solution according to claim 1, wherein the diffusive retaining solvent is at least one selected from glycol and glycol ester.

13. (Original) The solution according to claim 12, wherein the diffusive retaining solvent is at least one selected from the group consisting of: ethylene glycol, diethylene glycol, propylene glycol, cellosolve, carbitol, and butyl carbitol.

14-19. (Canceled)

20. (Currently Amended) An aqueous solution for forming a copper-to-resin bonding layer, comprising:

- (a) at least one type of acid selected from inorganic acid and organic acid;
- (b) tin salt or tin oxide wherein the concentration of the tin salt or tin oxide in terms of the concentration of tin is in a range of 0.1 to 5 mass %;
- (c) salt or oxide of at least one type of metal selected from the group consisting of silver, zinc, aluminum, titanium, bismuth, chromium, iron, cobalt, nickel, palladium, gold, and platinum wherein the concentration of the salt or oxide of the at least one type of metal in terms of the concentration of metal is 0.5 to 10 mass %;
- (d) a reaction accelerator wherein the concentration of the reaction accelerator is in a range of 5 to 40 mass %, the reaction accelerator being an agent that coordinates to copper as a base material to form a chelate and facilitates forming a bonding layer for bonding resin on a copper surface; and
- (e) a diffusive retaining solvent ~~[[is]]~~ in a range of 5 to 60 mass %, wherein the diffusive retaining solvent is at least one selected from glycol and glycol ester.

21. (Previously Presented) The solution according to claim 20, wherein the inorganic acid is at least one selected from the group consisting of hydrochloric acid, sulfuric acid, nitric acid, fluoroboric acid, and phosphoric acid.

22. (Previously Presented) The solution according to claim 20, wherein the organic acid is at least one selected from the group consisting of carboxylic acid, alkanesulfonic acid, and aromatic sulfonic acid.

23. (Currently Amended) The solution according to claim ~~[[22]]~~ 20, wherein the organic acid is at least one selected from the group consisting of formic acid, acetic acid, propionic acid, butyric acid, methanesulfonic acid, ~~ethanesulfonic~~ ethanesulfonic acid, benzenesulfonic acid, phenolsulfonic acid, and cresolsulfonic acid.
24. (Previously Presented) The solution according to claim 20, wherein the concentration of the acid is in a range of 1 to 50 mass %.
25. (Currently Amended) The solution according to claim 20, wherein the salt or oxide of the at least one type of metal is at least one type of soluble salt or oxide selected from the group consisting of Ag_2O , ZnO , Al_2O_3 , TiO_2 , ~~[[Bi₂O₃]]~~ Bi_2O_3 , Cr_2O_3 , AgCl , ZnI_2 , AlBr_3 , BiI_3 , FeCl_3 , PdCl_2 , AuCl , Ag_2SO_4 , $\text{Zn}(\text{NO}_3)_2$, ~~[[Al(NO₃)₃]]~~ $\text{Al}(\text{NO}_3)_3$, NiSO_4 , CoSO_4 , CH_3COOAg , and $(\text{HCOO})_2\text{Zn}$.
26. (Currently Amended) The solution according to claim 20, wherein the reaction ~~accelerator~~ accelerator is at least one compound selected from the group consisting of thiourea, 1,3-dimethyl thiourea, 1,3-diethyl-2-thiourea, and thioglycolic acid.
27. (Currently Amended) The solution according to claim 20, wherein the diffusive retaining solvent is at least one selected from the group consisting of ethylene glycol, diethylene glycol, ~~propylene~~ propylene glycol, cellosolve, carbitol, and butyl carbitol.
28. (New) The solution according to claim 20, wherein the tin salt or tin oxide is at least one selected from the group consisting of stannous sulfate, stannic sulfate, stannous fluoroborate, stannous fluoride, stannic fluoride, stannous nitrate, stannic nitrate, stannous oxide, stannous chloride, stannic chloride, stannous formate, stannic formate, stannous acetate, and stannic acetate.